

NDIA Systems Engineering Conference



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Overview

- **The Organization**
 - *Force Integration Initiatives:*
 - **Family of Interoperable Operational Pictures (FIOP)**
 - **Single Integrated Air Picture (SIAP)**
 - **Single Integrated Ground Picture (SIGP)**
 - **Combat Identification (CID)**
 - **Precision Engagement/Time Sensitive Targeting (PE/TST)**
 - **Blue Forces Tracking (BFT)**
 - **Summary**

OSD Organizational Chart

Secretary of Defense

Deputy Secretary of Defense

USD(AT&L)

Mr. Pete Aldridge

PDUSD(AT&L)

Mr. Michael Wynne

Director

Defense Systems

Director

Systems Integration

Director for Systems Integration

Mission

USD(AT&L) focal point for building system-of-systems capabilities in support of future operations.

Achieving 100% of Operational Capability.

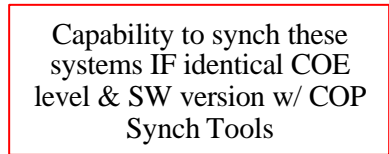
Cooperation with allies and coalition partners from the beginning.

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****As of Jun 00****

USER/CONCEPT CORRESPONDING SYSTEMS: “As-Is / As Planned”

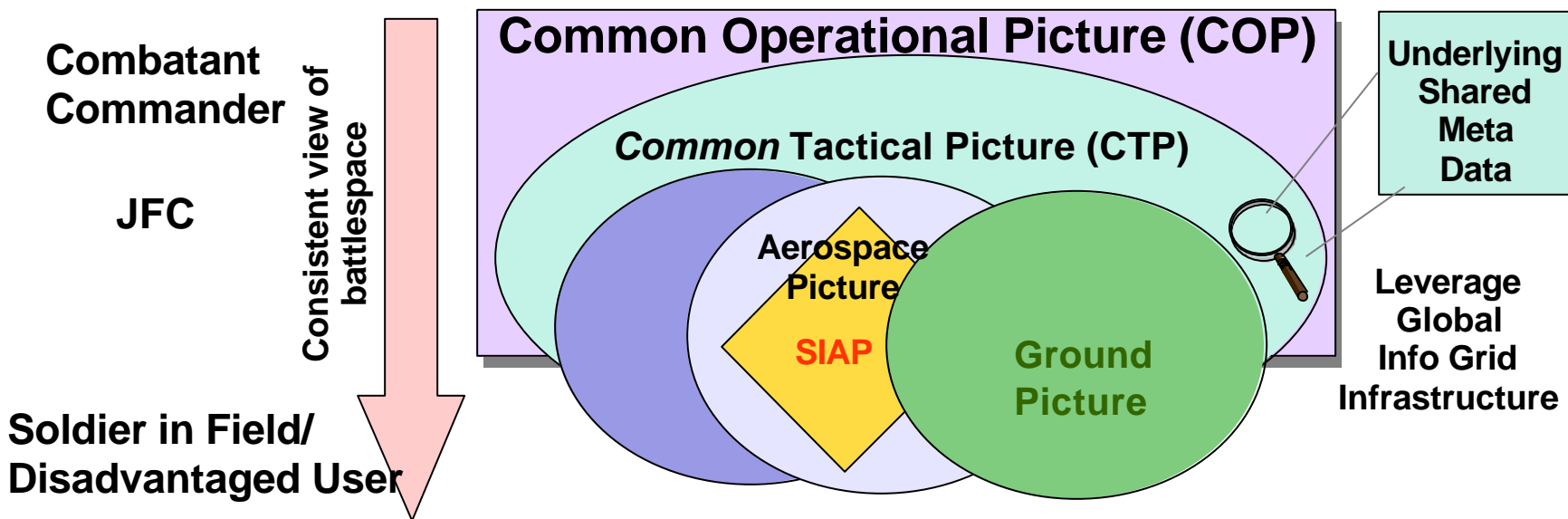


- Notes:
- Some Svc systems deployed on other Svc platforms
 - As is depicts presence in at least one CINC theater

Conceptual Solution

***A Family of Interoperable Operating “Pictures” (FIOP)
for Battle Management***

***Joint Staff/JFCOM/Service/Agency
stakeholder’s agreed-upon graphic:***



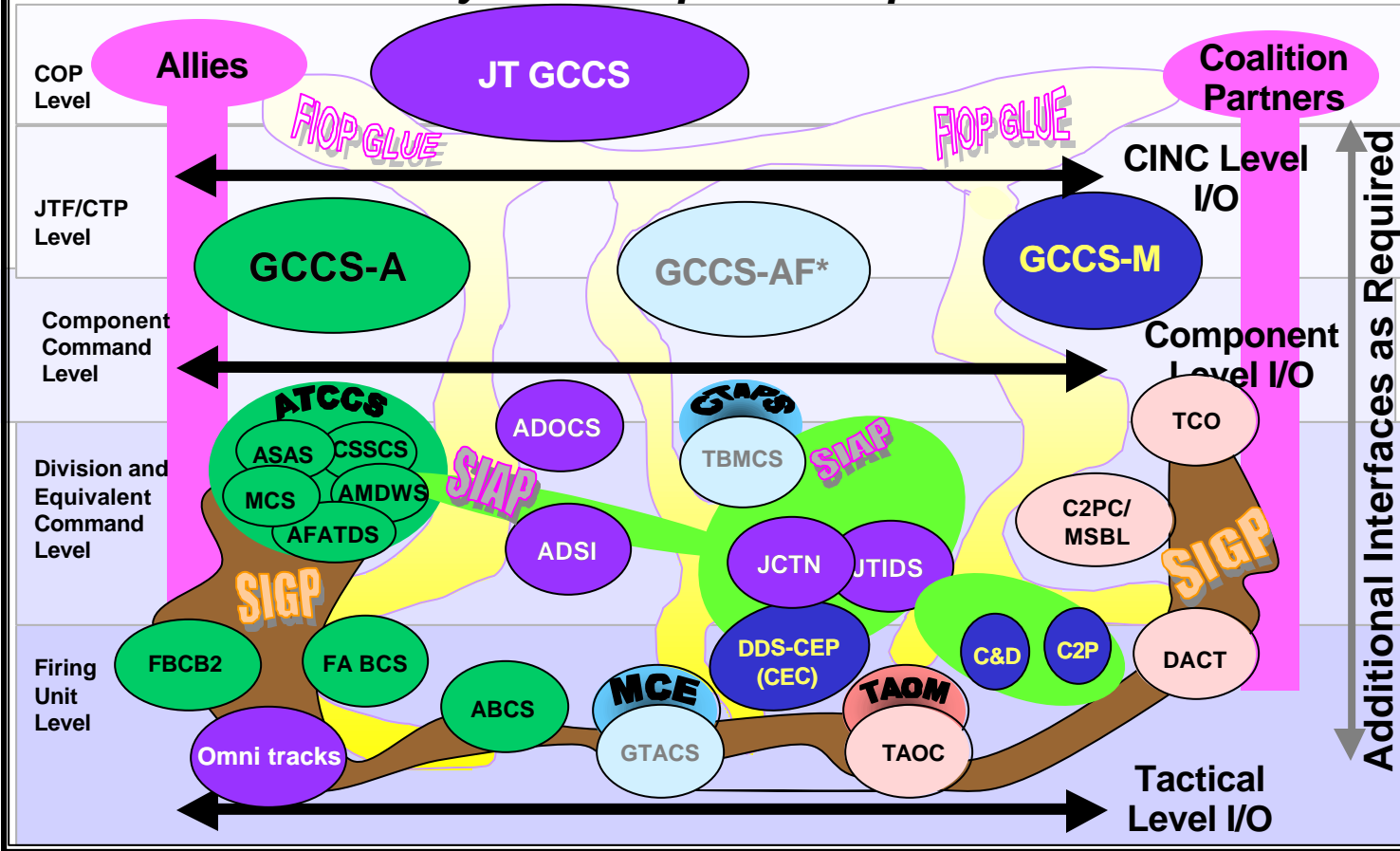
Combatant Commander EUCOM footnote:

Balance flexibility for the JFCs to configure pictures with a “preferred” option.

The Solution: A Conceptual View of FIOP as Glue

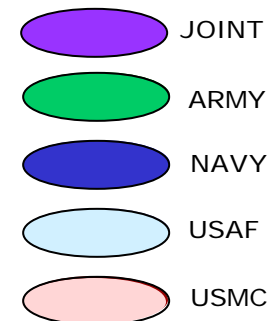
Needed horizontal and vertical system interoperability across Service lines and between echelons.

"TO BE": Family of Interoperable Operational "Pictures"



FIOP Glue:

- Federating Data Strategy "Information"
- Fusion Strategy
- Multi-Level Security Architecture
- Direction Vector for Relevant Department Initiatives



The Progression of FIOP

➤ **Oct 2002, Spiral 2 Plus-up being determined**

➤ **FY02-05, Executing FIOP Spiral 1**

➤ **March 2002, FOG approved proposed Spirals 1 & 2**

➤ **August 2001, AT&L establishes FIOP Oversight Group (FOG)**

- October 2001, JROCM directs (Service) FIOP to develop a management plan

- February 2001, CONOPS developed

- November 2000, Air Force takes FIOP Service Lead with all other Services Participating

- November 2000, PBD 290 Including FIOP Funding is issued

- Late October 2000, JROCM for FIOP is issued.

- October 2000, FIOP goes before the JROC

- Fall 2000, (Service) FIOP is initiated through the JRP and JRB

- June 2000, FIOP Prgm Plan Issued and Resources Defined, Over 70 Related Initiatives Identified

- June 2000, FIOP Five Stakeholder Tracks integrated into Program Plan

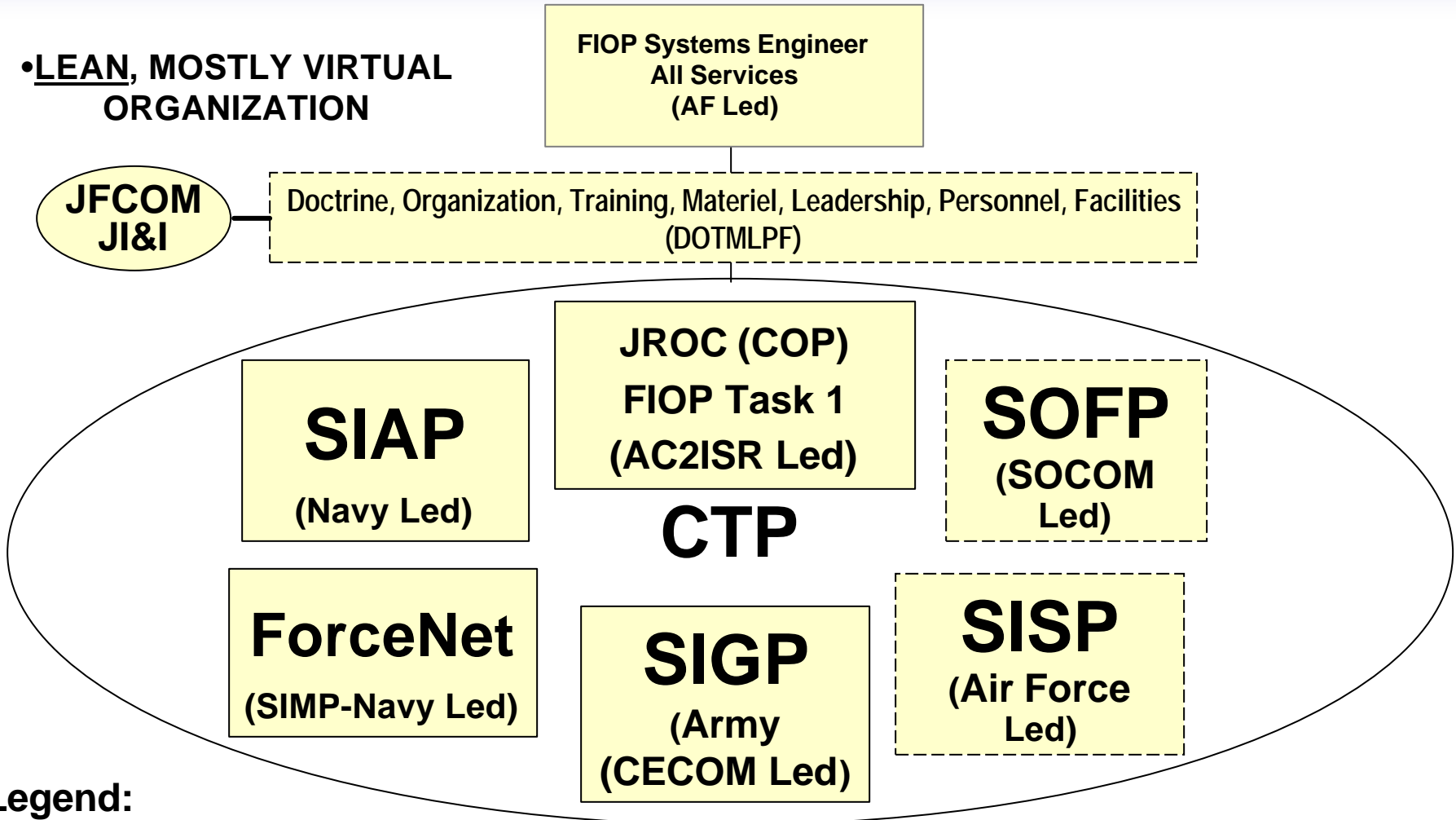
- May 2000, Developed FIOP Capabilities Portfolio

- March 2000, Follow-up Stakeholders Conference, Initiated Five Special Focus Tracks

- January 2000, Stakeholder Effort Initiated

Service Led FIOP

• LEAN, MOSTLY VIRTUAL ORGANIZATION



Legend:

Establishment of SE Orgs will be via JROC (no preset timeframe)

Joint Distributed Engineering Plant (JDEP)

SIGP - Single Integrated Ground Picture
SIMP - Single Integrated Maritime Picture
SISP - Single Integrated Space Picture

SIAP - Single Integrated Air Picture
COP - Common Operational Picture
CTP - Common Tactical Picture

SOFP - Special Operation Force Picture

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Single Integrated Air Picture (SIAP)

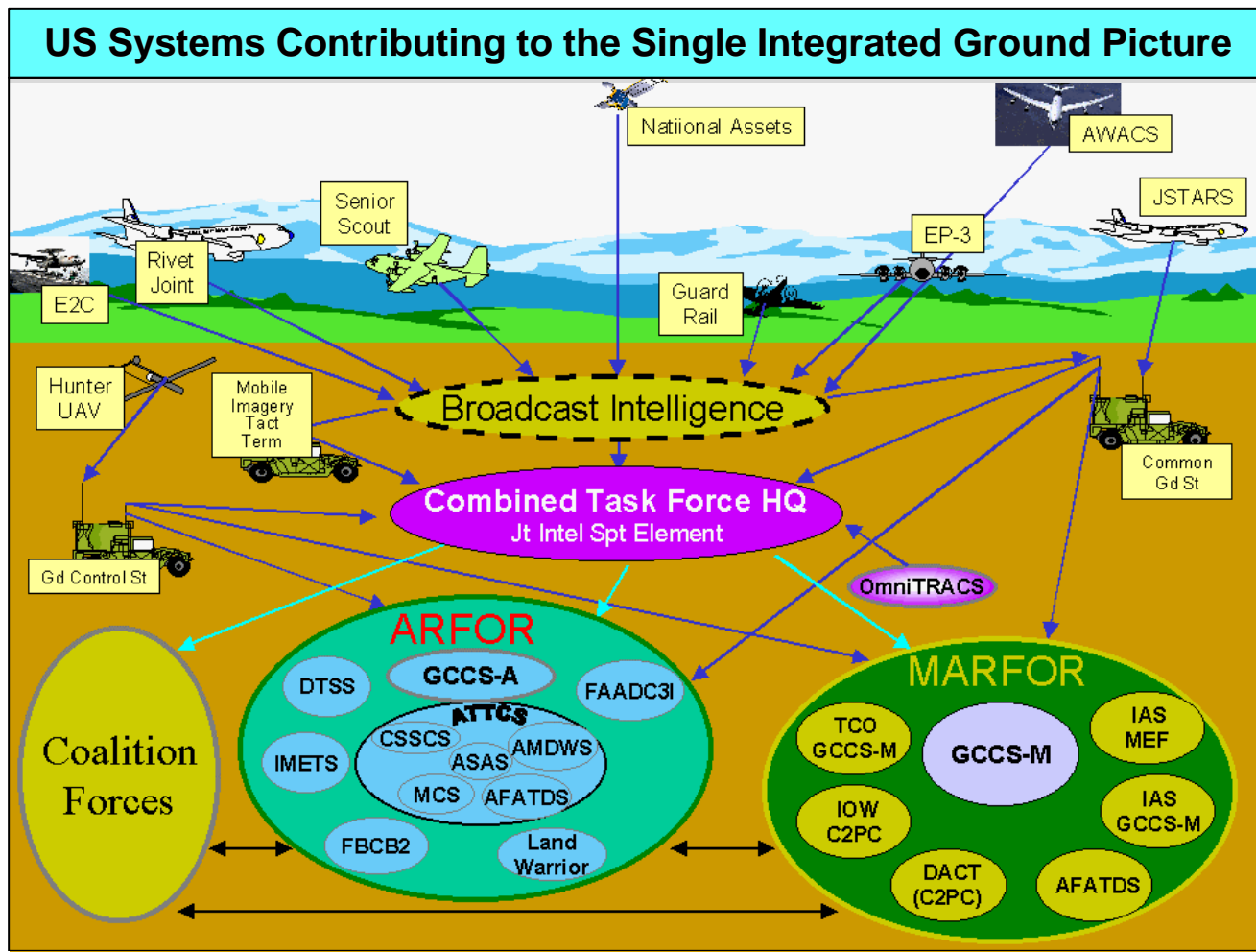
- SIAP has taken on the challenge and is “Leading the Way” in achieving battle management as one part of FIOP initiative.
- SIAP should evolve into a seamless component of the Family of Interoperable Operational Pictures (FIOP), along with a Single Integrated Air Picture (SIAP), Single Integrated Maritime Picture (SIMP), Single Integrated Space Picture (SISp), Common Operational Picture (COP) and Common Tactical Picture (CTP).
- Engineering solutions when implemented by the Services will produce measurable warfighting benefits (e.g., reduced fratricide, increased performance and capability to counter existing and emerging threats)
- SIAP addressed the need for “one track per target,” which will reduce fratricide by reducing operator confusion.
- SIAP will provide a plan to develop a Joint Common Tactical Network (JCTN) Roadmap including an implementation strategy. (USD (AT&L) Memo 25 June 2001)
- **JROC Approved Block 0 & Block 1 implementation July 2002**

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Single Integrated Ground Picture (SIGIP)

- Capabilities Roadmap developed by Multi-Service team
- VCSA & AT&L kicked off Multi-Service effort June 14th, 2002



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Combat Identification (CID)

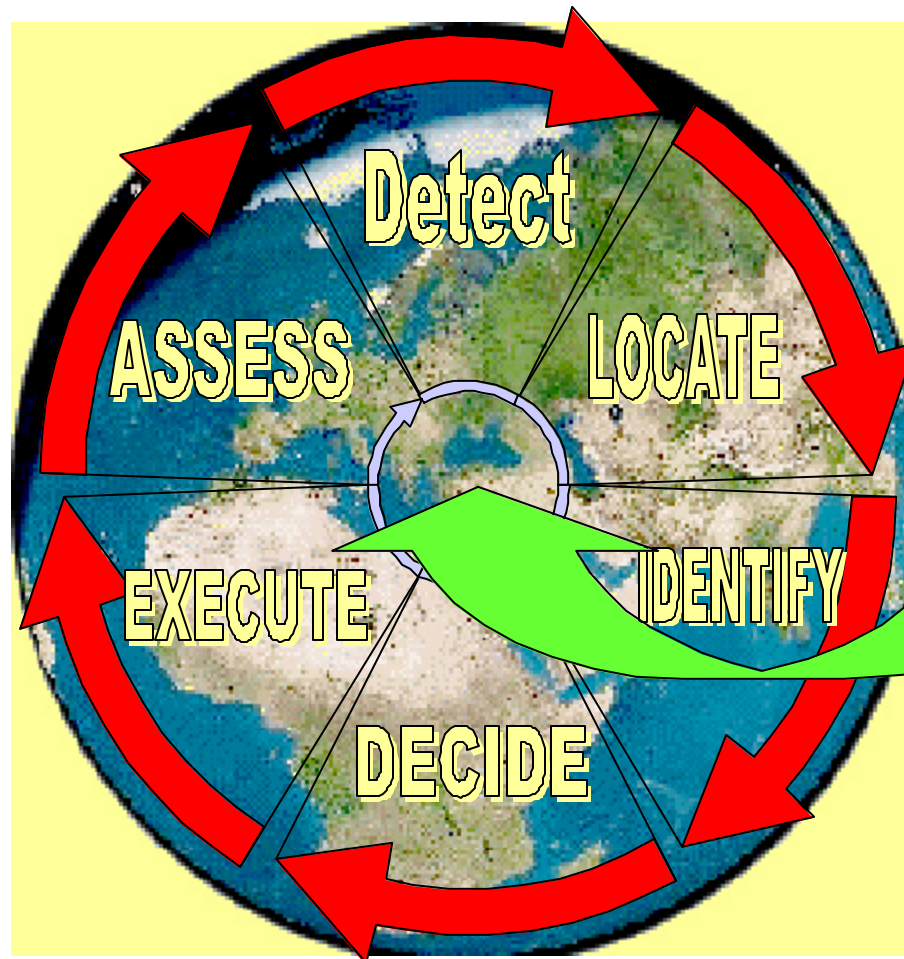
- **A top concern for US/Joint/Coalition Interoperability**
 - Many lives have been lost due to failures in CID
- **Leading an effort with C3I and Joint Staff to focus on the ground combat element of CID - where we are weakest**
- **“CID Architecture Study” proposal to lay out Army, Navy, Marine Corps, Air Force systems over time, in a synchronized fashion, to deliver a capability to our troops**
- **Leading an International Cooperative Opportunities Group (ICOG) (US/UK/Germany/France/Italy) Coalition CID Team to identify opportunities for shared success**
 - Agreed upon recommendations to present to the National Armament Directors (NADs)

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Precision Engagement/Time Sensitive Targeting

First Order Assessment will support JROC's Precision Engagement Strategic Topic



Where do we spend our next \$1 for capability improvement?

Precision Engagement (PE) / Time Sensitive Targeting (TST) Initiative

- **Summer 2001 Defense Science Board (DSB) Study on Precision Targeting**
 - **OSD/Joint Staff/Multi-Service/Agency Team scrubbed recommendations.**
 - **US Air Force, as Executive Agent, shepherded the selected recommendations through formal Service and JROC vetting. Conducted first Mission Area Review**
 - **JROC endorsement received on September 18, 2002.**
- **Next step: Continue review of PE/TST acquisition programs and initiatives. Conduct second Mission Area Review**
 - **Determine the “right things to do” in this mission area**
 - **Help lay out a capability roadmap.**
 - **Continue to perform “first order” assessments and determine where the Department spends its “next dollar” to achieve a capability improvement.**

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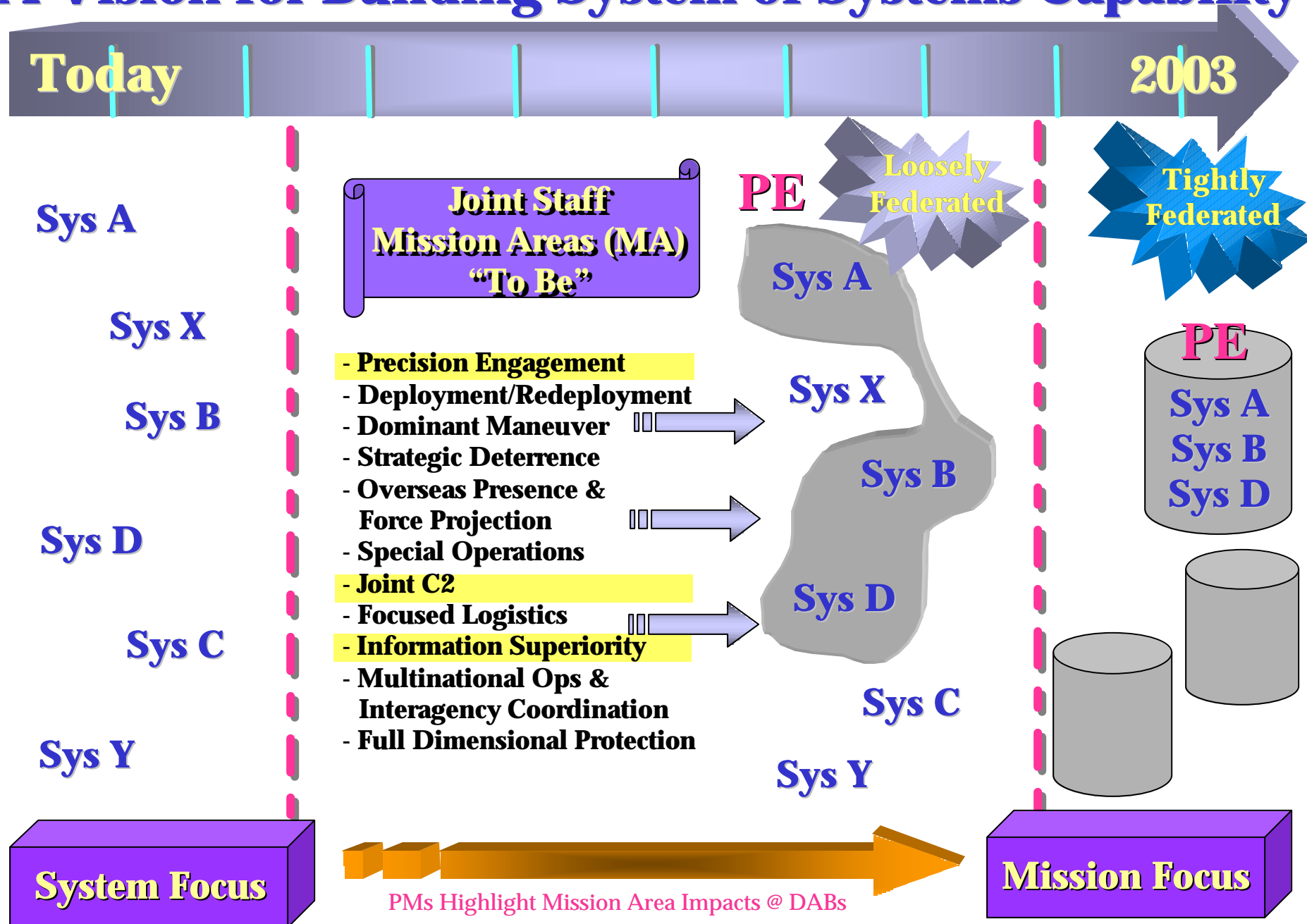
Blue Force Tracking (BFT)

- **Systems and capabilities used to report and relay Blue (Friendly/Coalition) Force location, movement, intent and status information (LOS/BLOS)**
- **USD(AT&L), Joint Staff, ASD/C3I leading the effort to designate a DoD Executive Agent**
- **Assessing BFT Systems Capabilities**

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A Vision for Building System of Systems Capability



Questions ?